

Amendments to the Claims

This listing of claims will replace all prior listings of claims in the application.

Listing of Claims

1. (Currently amended) A surgical handpiece for actuation of a cutting accessory attached to said handpiece, said handpiece comprising:

a housing, said housing formed to define a suction bore that extends from the cutting accessory and a suction passage;
a power generating unit disposed in said housing for actuating the cutting accessory;

a valve assembly, said valve assembly including:

a valve chamber defined by said housing between the suction bore and the suction passage; and

a valve rotatably mounted in the valve chamber and including a movable control member disposed outside of said housing, said valve ~~being formed to have~~ comprising a valve stem formed from rigid material and further shaped to have a stem bore that extends therethrough, and a valve barrel formed of flexible material and having a portion which extends through the stem bore so as to define a valve bore that extends therethrough through said valve barrel with first and second non-circular valve bore openings at the opposite ends of said valve bore, wherein the first valve bore opening is selectively placed in registration with the suction bore and the second valve bore opening is placed in registration with the suction passage as the valve is rotated from a closed state to a fully open state, the first valve bore opening being shaped to have a first narrow width section that is first placed in registration with the suction bore during the rotation of the valve from the closed state to the fully open state and a second, wide width section that is

placed in registration with the suction bore as said valve is further rotated toward the fully open state, the second valve bore opening being shaped to have a first narrow width section that is first placed in registration with the suction passage during the rotation of the valve from the closed state to the fully open state and a second, wide width section that is placed in registration with the suction passage as the valve is further rotated toward the fully open state.

2. (Cancelled)

3. (Currently amended) The surgical handpiece of Claim 21, wherein said valve barrel defines a rib that is located around a perimeter of each said valve bore opening, each said rib being positioned to extend away from said valve stem and being dimensioned to abut a surface of said housing that defines the valve chamber.

4. (Currently amended) The surgical handpiece of Claim 21, wherein said valve barrel is further formed to have a circular rib that extends circumferentially around said valve stem, said rib being dimensioned to extend away from said valve stem and to abut a surface of said housing that defines the valve chamber.

5. (Previously presented) The surgical handpiece of Claim 1, further including an indexing assembly attached to said valve assembly and said housing for providing a resistance to the rotation of said valve when said valve is rotated to a position in which the first narrow width section of the first valve bore opening is placed in partial registration with the suction bore.

6. (Previously presented) The surgical handpiece of Claim 5, wherein:

said housing is formed so that the valve chamber comprises a closed bore that has a base defined by an inner surface of said housing;

said valve is formed with an end surface that is located adjacent the inner surface of said housing that defines the base of the valve chamber; and

a retaining member is positioned in one of said valve and said housing and is positioned to engage the other one of said housing and said valve to removably hold said valve in the valve chamber.

7-8. (Cancelled)

9. (Previously presented) The surgical handpiece of Claim 1, wherein said first and second valve bore openings are identically shaped but inverted relative to one another on opposite sides of said valve such that said first narrow width section of said first valve bore opening is disposed circumferentially adjacent said second wide width section of said second valve bore opening, and said second wide width section of said first valve bore opening is disposed circumferentially adjacent said first narrow width section of said second valve bore opening.

10. (Previously presented) A surgical handpiece for actuation of a cutting accessory attached to said handpiece, said handpiece comprising:

a housing, said housing being formed to define a suction bore that extends from the cutting accessory and a valve chamber that intersects the suction bore;

a power generating unit disposed in said housing for actuating the cutting accessory;

a valve assembly, said valve assembly including:

a valve stem formed from rigid material and moveably mounted in the valve chamber, said valve stem being

formed to define a stem bore that extends through said valve stem;

a valve barrel comprising flexible material and having a portion disposed within the stem bore so as to define a valve bore, said valve bore having a non-circular valve opening that is selectively placed in registration with the suction bore, said valve opening having a first section with a first cross sectional width and a second section contiguous with the first section and having a second cross sectional width that is greater than the first cross sectional width, such that when said valve stem is moved from a closed position to an open position, the first section of the valve opening moves into registration with the suction bore before the second section of the valve opening moves into registration with the suction bore; and

a moveable control member connected to said valve stem that is located outside of said housing for manually establishing the position of said valve stem.

11. (Previously presented) The surgical handpiece of Claim 10, wherein said valve stem is rotatably moveable in the valve chamber.

12. (Previously presented) The surgical handpiece of Claim 11, further including an indexing assembly secured to said valve assembly and said housing for providing a set resistance to the rotation of said valve stem when said valve stem is rotated to a position in which the first section of the valve bore opening is placed in partial registration with the suction bore.

13. (Cancelled).

14. (Previously presented) The surgical handpiece of Claim 10, wherein said valve barrel is further formed to

define a first rib that is located around a perimeter of the valve opening and dimensioned to contact a surface of said housing that defines the valve chamber.

15. (Previously presented) The surgical handpiece of Claim 14, wherein said valve barrel is further formed to have a second rib that extends circumferentially around said valve stem, said second rib being dimensioned to contact the surface of said housing that defines the valve chamber.

16. (Previously presented) A surgical handpiece for actuation of a cutting accessory attached to said cutting accessory, said handpiece comprising:

- a housing, said housing shaped to have a suction bore that extends from the cutting accessory and a valve chamber that intersects the suction bore;

- a power generating unit disposed in said housing for actuating the cutting accessory; and

- a valve assembly, said valve assembly including:

- a valve stem rotatably mounted in the valve chamber, said valve stem being formed from rigid material and being shaped to have an outer surface and a valve stem bore that extends through said valve stem;

- a valve barrel located around the outer surface of said valve stem, said valve barrel being shaped to define a first rib that extends circumferentially around said valve stem, and second and third ribs that extend around opposed openings of a valve bore, said first, second and third ribs being dimensioned to abut surfaces of said housing that define the valve chamber; and

- a lever attached to said valve stem that is located outside of said housing.

17. (Previously presented) The surgical handpiece of Claim 16, wherein:

- said valve stem bore has a cross sectional area; and

said valve barrel includes a portion disposed inside the valve stem bore, said portion defining the valve bore and being shaped to have a cross-sectional area less than a cross-sectional area of the valve stem bore.

18. (Previously presented) A surgical handpiece for actuation of a cutting accessory attached to said handpiece, said handpiece comprising:

- a housing shaped to define a suction bore that extends from the cutting accessory and a valve chamber that intersects the suction bore;

- a power generating unit disposed in said housing for actuating the cutting accessory;

- a valve assembly, said valve assembly including:

- a valve stem rotatably mounted in the valve chamber, said valve stem being formed from rigid material and being shaped to have a valve stem bore that extends between openings formed in said valve stem, the valve stem bore having a cross sectional area; and

- a valve barrel formed of compressible material and disposed in the valve stem bore, said valve barrel being shaped to define a valve bore that extends through the valve stem bore, the valve bore having opposed valve bore openings and a cross sectional area less than the cross sectional area of the valve stem bore, said valve barrel being formed to define first and second ribs, each said rib extending around an outer perimeter of a separate one of the valve bore openings and being dimensioned to contact a surface of said housing that defines the valve chamber; and

- an arm attached to said valve stem that is located outside of said housing.

19. (Original) The surgical handpiece of Claim 18, wherein said valve barrel is further formed to define a third rib that extends circumferentially around said valve stem and

that is dimensioned to contact the surface of said housing that defines the valve chamber.

20. (Previously presented) The surgical handpiece of Claim 18, wherein said valve barrel has a portion disposed in said valve stem bore and another portion which extends around the outer surface of said valve stem, said valve barrel having a third rib that extends circumferentially around said valve stem and that is dimensioned to contact the surface of said housing that defines the valve chamber and to define a groove that extends circumferentially around said valve stem, the groove being located adjacent said third rib.

21. (Previously presented) The surgical handpiece of Claim 18, wherein:

said housing is formed so that the valve chamber is a closed bore that has a base defined by an inner surface of said housing;

said valve stem is formed with an end surface that is located adjacent the inner surface of said housing that defines the base of the valve chamber; and

said valve barrel having a portion disposed in said valve stem bore and another portion which extends circumferentially around said valve stem.

22. (Previously presented) A surgical handpiece for actuation of a cutting accessory attached to said handpiece, said handpiece comprising:

a housing formed to define a suction bore that extends from the cutting accessory and a valve chamber that intersects the suction bore, the valve chamber being a closed-ended bore;

a power generating unit disposed in said housing configured to actuate the cutting accessory;

a valve assembly, said valve assembly including:

a valve body that is rotatably fitted in the valve chamber and defined by a stem and a lever integral with

said stem, the stem being shaped to define a through bore that is selectively placed in registration with the suction bore, said valve body being formed with a first hole that is directed towards said housing and a second hole having a portion that intersects the first hole; and a first pin that is slidably fitted in the first hole and the portion of the second hole that intersects the first hole, and a second pin that is removably fitted in the second hole, wherein said second pin is dimensioned so that said second pin seats in the portion of the second hole in which said first pin can slide, and said first pin is dimensioned so that when said second pin is disposed in the portion of said second hole in which said first pin can slide, said first pin is blocked from sliding in the second hole and extends out of said first hole and engages a surface of said housing.

23. (Previously presented) The surgical handpiece of Claim 22, wherein said valve body is formed with a third hole, and an indexing member is fitted in the third hole and positioned to engage a surface of said housing.

24. (Previously presented) The surgical handpiece of Claim 22, wherein:

said stem is formed from rigid material;

said valve body including a valve barrel formed from compressible material and having a portion which extends through the through bore of said stem and defines a valve passage, the valve passage having opposed passage openings, and said valve barrel is further formed to define ribs that are located around the outer perimeters of the passage openings, the ribs being dimensioned to abut surfaces of said housing that define the valve chamber.

25-34. (Cancelled)